

REMARKS

Claims 1-6, 8-14 and 16-18 are pending in this application. Claims 7 and 15 have been canceled without prejudice or disclaimer, claims 1 and 9 have been amended herein, and new claims 17-18 have been added.

Claims 1 and 9 have been amended for clarity and to provide antecedent basis for the “developing portion.”

Claim 1 has been amended to incorporate the limitation of claim 7 and claim 9 has been amended to incorporate the limitation of claim 15, and claims 7 and 15 have correspondingly been canceled.

Regarding the Information Disclosure Statement filed November 16, 2002.

In the returned Information Disclosure Statement, the Examiner lined through JP55-18656 and did not consider this reference, because no concise explanation of the relevance was given. Applicants now note that this reference, which corresponds to application number JP53-92105, is a cited foreign priority document for U.S. Patent No. 4,395,476, also cited in the Information Disclosure Statement. Consideration of JP55-18656 is respectfully requested, and Applicants have enclosed a new form 1449 listing JP55-18656, for the Examiner’s convenience.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as indefinite.

The rejection is overcome by the amendments to claims 1 and 9. The amendments provide antecedent basis for the term “developing portion” by reciting that the developer is –transported by a developing portion– in line 3 of these claims.

Support for the recitation of the term “developing portion” is found in the specification on pages 6, 7, 8, 9 and 29. On pages 6, 7, 8 and 9, the term appears in a formula similarly to its use in claim 1. On page 29, reference is again made to “no-load revolution of the developing portion.” The “developing portion” also appears in Table 1.

Applicants note that the recited “revolution of developing portion” refers to operation of the “developing machine” (see page 28, lines 17-19), which is part of the image forming apparatus of Fig. 1. The “developing machine” appears in Fig. 2 and is discussed on page 10, line 37 to page 11, line 19, as well as further detailed description on pages 11 and 12.

Claims 1-6, 8-14 and 16 are rejected under 35 U.S.C. 102(e) as anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Sugizaki et al. (U.S. Pat. No. 6,150,062).

The rejection is overcome by the amendments to claims 1 and 9. The amendments incorporate the limitation of canceled claims 7 and 15, –wherein said developer is a nonmagnetic one-component developer–. Sugizaki et al. does not appear to disclose a nonmagnetic one-component developer.

Claims 1-16 are rejected under 35 U.S.C. 102(e) as anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Moriki et al. (U.S. Pat. No. 6,077,636).

The rejection of pending claims 1-6, 8-14 and 16 over Moriki et al. '636 is respectfully traversed.

In rejecting the claims, the Examiner states on page 6 of the Office action that there is sufficient reason to believe that the toner of Moriki inherently has the aggregation and charging characteristics of the toner of the instant claims. Applicants argue, however, that these characteristics are not inherent in Moriki et al. Moriki et al. is directed to the use of toner particles of specific circularity and specific particle size distribution. In particular, the circularity is 0.950 to 0.995, and Moriki et al. requires inorganic fine powder (A) and non-spherical inorganic fine powder (B) as an external additive (column 10, lines 24-32), with the purpose of preventing the inorganic fine powder (A) from being buried in the toner particle surfaces.

By contrast, the present claims recite that the toner contains an external additive at 1.5 to 10.0 parts, and there is no limitation on the configuration of the toner particles. The external additive is controlled to this level to achieve the recited aggregation degree and charge ratios recited in the claims.

Applicants do not believe that these recited characteristics are **necessarily** inherent in Moriki et al. '636. Applicants note that MPEP 2112 states, in part:

“The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993)(reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily

present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981).

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original) ..."

Applicants also note that Moriki's fine powder (A) does not appear to meet the limitations of claims 2 and 10, since the size range of Moriki's fine powder and the recited range in claims 2 and 10 overlap only at exactly 30 nm.

In addition, regarding new claims 17 and 18, Applicants note that Moriki et al. discloses a non-contact non-magnetic one-component developing method (column 28, lines 8-10). Therefore, Moriki et al. does not disclose the limitations of claims 17 and 18, which require "a contact type non-magnetic one-component developing method".

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

Attached hereto is a marked-up version of the changes made to the by the current amendment. The attached page is captioned "Version with markings to show changes made."

AMENDMENT UNDER 37 CFR 1.111
Takashi YAMAMOTO et al.

U.S. Patent Application S.N. 09/712,927
Attorney Docket No. 001527

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully Submitted,

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PATENT TRADEMARK OFFICE

Enclosures: Version with markings to show changes made
PTO-1449

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Please amend claims 1 and 9 as follows:

1. (Amended) A method for the formation of a color image which comprises the steps of forming an electrostatic latent image in accordance with an electrophotographic process, visualizing said electrostatic latent image by a developer transported by a developing portion to form a multicolored toner image whereby each monochromatic color toner image is formed by a mutually independent developing step, and superposing then the resulting monochromatic toner images with one another to form a multicolored toner image, and in which method a toner used in each developing step contains an external additive, the addition amount of the external additive to a non-added toner containing no external additive is within the range of 1.5 to 10.0 parts by weight on the basis of 100 parts by weight of said non-added toner, and the aggregation degree of said toner is within the range of 30 to 80%, and the change ratio of the aggregation degree satisfies the following formula:

$$0.8 \leq (\text{initial aggregation degree})/(\text{aggregation degree after 20 hours of no-load revolution of developing portion}) \leq 1.2; \text{ and}$$

wherein said developer is a nonmagnetic one-component developer.

9. (Amended) A method for the formation of a color image which comprises the steps of forming an electrostatic latent image in accordance with an electrophotographic process, visualizing said electrostatic latent image by a developer transported by a developing portion to form a multicolored toner image whereby each monochromatic color toner image is formed by a mutually independent developing step, and then superposing the resulting monochromatic toner images with one another to form a multicolored toner image, and in which method a toner used in each developing step contains an external additive, the addition amount of the external additive to a non-added toner containing no external additive is within the range of 1.5 to 10.0 parts by weight on the basis of 100 parts by weight of said non-added toner, and the change ratio of the electrostatic charge amount of said toner on an image support for forming and visualizing said electrostatic latent image satisfies the following formula:

$$1.0 \leq (\text{initial charge amount})/(\text{charge amount after 20 hours of no-load revolution of developing portion}) \leq 1.5; \text{ and}$$

wherein said developer is a nonmagnetic one-component developer.